

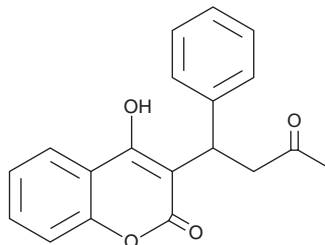
# PRODUCT INFORMATION



## (±)-Warfarin

Item No. 13566

**CAS Registry No.:** 81-81-2  
**Formal Name:** 4-hydroxy-3-(3-oxo-1-phenylbutyl)-2H-1-benzopyran-2-one  
**Synonyms:** Athrombine K, NSC 59813, (RS)-Warfarin, WARF 42, Zoocoumarin  
**MF:** C<sub>19</sub>H<sub>16</sub>O<sub>4</sub>  
**FW:** 308.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 272, 282, 306 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

(±)-Warfarin is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-warfarin in the solvent of choice. (±)-Warfarin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of (±)-warfarin in ethanol is approximately 5 mg/ml and approximately 25 mg/ml in DMSO and DMF.

### Description

(±)-Warfarin (Item No. 13566) is a vitamin K antagonist, a coumarin derivative, and a racemic mixture of (+)-warfarin (Item No. 13526) and (-)-warfarin (Item No. 13531).<sup>1,2</sup> It is an anticoagulant that interferes with interconversion of vitamin K and vitamin K epoxide and the role of vitamin K in carboxylation of several clotting cascade proteins, inhibiting the initiation of clotting.<sup>1</sup> Formulations containing warfarin have been used to treat and prevent blood clots in atrial fibrillation, heart valve replacement, venous thrombosis, and pulmonary embolism.

### References

1. Hirsh, J., Fuster, V., Ansell, J., et al. American heart association/american college of cardiology foundation guide to warfarin therapy. *J. Am. Coll. Cardiol.* **41**(9), 1633-1652 (2003).
2. Ufer, M. Comparative pharmacokinetics of vitamin K antagonists warfarin, phenprocoumon and acenocoumarol. *Clin. Pharmacokinet.* **44**(12), 1227-1246 (2005).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM